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Economic Cooperation**

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Annual Mining Report 2018 by Australia

Purpose: Information
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12th Mining Task Force Meeting
Port Moresby, Papua New Guinea
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12th APEC Mining Task Force Meeting

Australia Annual Mining Report 2018

1. Overview

- In 2017-18, the resources and energy sector accounted for 7 per cent share of Australia's Gross Domestic Product and resources exports were valued at AUD 226 billion, a record high.
- In November 2017 there were more than 216, 000 people employed in mining, a 3% reduction from November 2016
- Australia is the largest exporter of iron ore, alumina, bauxite and metallurgical coal. It is also the world's largest bauxite producer and the second largest exporter of thermal coal and LNG.
- Australia has more than 260 producing mineral, oil and gas operations.

Exports (June Quarter 2018)	Share of world (%)	World ranking
Iron ore	53	1
Metallurgical coal	54	1
LNG	20	2
Thermal coal	19	2
Gold	9	2
Oil - crude oil and refinery feedstocks	1	27
Copper- ores and concentrates	7	3
Alumina	40	1
Aluminium	7	4
Bauxite	52	1
Zinc - refined	9	3
Nickel - refined	17	3

Source: World Metal Statistics; Department of Industry, Innovation and Science Resources and Energy Quarterly

Mining, Equipment, Technology and Services

Australia has a vibrant and growing Mining, Equipment, Technology and Services (METS) sector.

Category	Number of jobs
2014-15 jobs created by METS	503,000
Total full-time employment (METS and mining)	1.1 million full time equivalent (FTE)

Sources: AlphaBeta and Minerals Council of Australia

2. Recent Government Initiatives

Resources 2030 Taskforce

Announced by the Minister for Resources and Northern Australia in March 2018, the taskforce is examining how Australia's resource sector can remain globally competitive and sustainable. It has been tasked with identifying bold, attainable reforms to help secure the Australian resource sector's future.

The taskforce will focus on policy areas that can:

- attract investment,
- contribute to regional economic progress,
- build community support,
- simplify business,
- find new minerals, and
- ensure that Australia gets best use of its mineral resources before they are exported.

The taskforce is due to report by the end of August 2018 and the Australian Government will use its recommendations as a basis to develop a National Resources Statement in late 2018.

More information on the taskforce can be found here: <https://www.industry.gov.au/strategies-for-the-future/resources-2030-taskforce>

Industry Growth Centres

Through an industry-led process the Industry Growth Centres Initiative aims to drive innovation, productivity and competitiveness.

The government is funding six Growth Centres in sectors of competitive strength and strategic priority. Two of these Growth Centres are focused on resources sector issues.

The Mining Equipment, Technology and Services Growth Centre (METS Ignited)

Established in 2016, METS Ignited works with Australian mining industry suppliers, global miners, researchers and capital providers to improve competitiveness and productivity.

In November 2016, METS Ignited released its 10 Sector Competitiveness Plan for strengthening the Australian METS sector and invigorating Australia's position as the global hub for mining innovation.

The METS Sector Competitiveness Plan addresses how the Australian METS sector can be competitive, skilled and forward-thinking to respond to future industry demands and to strengthen its position as an integral part of global mining.

Government investment in METS Ignited includes provision of Project Funds - a \$15.6m, four-year initiative to support, encourage and fund sector-wide collaboration through METS innovation projects identified and co-funded by industry.

Other METS Ignited activities include:

- Providing learning and development opportunities for METS businesses
- Sponsoring mining-centred hackathons
- Supporting mentoring for women in the METS sector
- An incubator program for small METS start-ups

The Australian Government will continue to provide funding for METS Ignited until 2022.

National Energy Resources Australia (NERA)

Also established in 2016, NERA is an industry led, not-for-profit initiative which aims to support the Australian energy resources sector to identify and deliver projects and activities to enhance the sector's innovation, competitiveness and productivity

- Its objectives are to reduce costs, achieve efficiencies and improve the competitiveness of the energy resources sector. NERA is doing this through promoting collaboration and innovation, commercialising industry-led research and technology, developing workforce skills, reducing regulatory burden and building a globally competitive value chain. Over a ten-year horizon, NERA is facilitating the sector to adapt, innovate and secure its role in powering the world, and contribute to a clean and sustainable future. Activities which NERA has undertaken include: hosting forums and workshops to explore a cluster concept with over 250 participants attending events held between November 2016 May 2017.
- supporting a collaborative industry project with the Australian Bureau of Meteorology, aimed at advancing Australia's understanding of tropical cyclones to improve safety, engineering design and insurance risk for onshore and offshore structures, across many industry sectors.
- Partnering with the Australian Academy of Technological Sciences and Engineering (ATSE) to deliver an award-winning PhD industry mentoring program to connect PhD students with industry professionals. The Industry Mentoring Network in STEM (IMNIS) program aims to narrow the cultural gap between industry and universities and prepare a new generation of diverse, inclusive, industry-ready PhD graduates.
- NERA co-funded a project with oil and gas operators and the Cooperative Research Centre for Contamination Assessment and the Remediation of the Environment (CRC CARE) to verify the effectiveness of natural biodegradation of petroleum hydrocarbons and facilitate potential regulatory reform in Australia.
- A project to achieve greater harmonisation between Australian Standards and trusted, accepted International Standards through developing a standards framework that promotes productivity and supply chain competitiveness, while also achieving high performance standards for social responsibility, safety and environment.

The Australian Government has also funded NERA to establish a wide range of industry-led collaborative projects aimed at addressing key challenges for the Australian oil, gas and energy resource sector. To date, NERA has committed more than AU\$10 million for 33 projects, supported by additional industry funding of more than AU\$24 million.

The Australian Government has agreed to continue to fund NERA until 2022.

The Cooperative Research Centres (CRC) Program

The CRC Program supports industry-led collaborations between industry, researchers and the community. It's a proven model for linking researchers with industry to focus on research and development towards use and commercialisation.

CRC grants provide successful applicants with access to grant funds for up to 10 years for collaborations from industry, research and community sectors to solve industry problems and improve the competitiveness, productivity and sustainability of the Australian industries

A CRC must have at least one Australian industry organisation and one Australian research organisation.

Cooperative Research Centres Projects (CRC-P) grants provide funds for up to three years for collaborations from industry, research and community sectors to develop important new technologies, products and services. CRC-Ps must have at least two Australian industry organisations including at least one small or medium-sized enterprise (SME) and one Australian research organisation.

Some recently funded CRCs include:

- **MinEx CRC** - will create new opportunities for mineral discovery by delivering: more productive, safer and environmentally friendly drilling methods; new technologies for collecting data while drilling; and exploration data on never before sampled deposits. The outcomes will also grow the high value Mining Equipment, Technology and Services (METS) sector. Government Grant Funding \$50,000,000 over 10 years with Participant Contributions: \$165,738,000 (cash and in-kind)
- The Future Fuels CRC - will provide enabling research and development to transition energy infrastructure to a low-carbon economy using fuels such as hydrogen and biogas. It will develop transition pathways for existing infrastructure and equipment to transport and use these new fuels today and well into the future. Collaborating with over 50 companies, 6 universities, the energy market operator and state regulators, this CRC will realise the potential to store and deliver reliable, clean, and affordable energy through both new and repurposed networks. Government Grant Funding \$26,250,000 over 7 years with Participant Contributions: \$64,389,000 (cash and in-kind)

3. Major projects

The Major Projects Facilitation Agency (MPFA), administered by the Department of Innovation, Industry and Science, aims to create an attractive investment environment for major projects by offering facilitation and information services to project proponents to help them understand their regulatory approval obligations across all levels of government.

Major projects status

Investors in major projects that have an expected capital expenditure of \$50 million or more, and that meet the eligibility criteria, may apply for Major Project Status. This status is the Australian Government's formal recognition of the national strategic significance of the project, through its contribution to economic growth, employment, or contribution to regional Australia. The MPFA provides an additional level of assistance to these projects, including working closely with state governments to coordinate the approvals process.

The MPFA is assisting a total of 32 projects across Australia, with an estimated capital expenditure of almost \$150 billion. Of These 20 major projects are in the mining and resources sector, with an estimated capital expenditure of approximately \$126 billion.

The MPFA has regional offices located in Darwin, Northern Territory, and Launceston, Tasmania.

A list of resources related major projects is at Table 1.

Table 1: List of Mining and Resources MPFA Active Projects (as at 17 May 2018)

Project Name	CAPEX (\$B)	Construction Jobs	Ongoing Jobs
Barossa Area Development (Offshore Petroleum)	4.500		
Browse LNG Project	40.000		1000
Central Eyre Iron Project	4.500	1940	700
Chandler Mining and Storage Facility	0.676	540	216
Dubbo Zirconia Project	1.300		
Equus Gas Fields Development	4.500	630	75
Galilee Coal Project (Northern Export Facility)	9.000	3500	2325
Great Sandy Desert Oil and Gas Project			
Greenbushes Lithium Mine Expansion			
Hawsons Iron Project	2.900	1200	500
Ichthys LNG Project	37.000	2000	1000
Mawson Iron Project			
Nolans Rare Earths Project	1.200	500	300
Prelude FLNG	12.000		820
Renison Tailings Retreatment Project (Rentails)	0.230	78	150
Sandy Ridge Mining and Storage Facility	0.061	90	21
Small Scale FLNG Project	1.600	150	100
Virtual Gas Pipeline Project	1.000	1200	260
West Pilbara Iron Ore Project	6.000	4000	1000
West Seahorse Project	0.140	100	30
TOTAL	126.607	15928	8497

* Major Project Status is the Australian Government's formal recognition of the strategic significance of a project. This status is conferred through a letter from the Minister for Industry, Innovation and Science.